

PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In the **PATENT APPLICATION** of:

Hunkeler et al.

Application No.: 10/679,804

Confirmation No.: Not Yet Known

Filed: October 6, 2003

For: QUALITY OF SERVICE MAPPING
BETWEEN VARIOUS TYPES OF WIRELESS
COMMUNICATION SYSTEMS

Group: 2681

Examiner: Not Yet Known

Our File: I-2-0388.1US

Date: February 22, 2005

**COMMUNICATION RE FAVORABLE IPER BY
IPEA/US IN CORRESPONDING INTERNATIONAL APPLICATION**

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

This communication is to advise the Examiner of the favorable International Preliminary Examination Report (IPER) issued by the United States Patent and Trademark Office acting as International Preliminary Examination Authority in a corresponding international application. A copy of the IPER is enclosed.

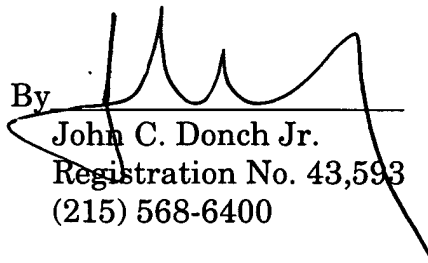
The original PCT claims correspond to the claims in this U.S. application. A copy of the approved claims as published is also enclosed.

Applicant: Hunkeler et al.
Application No.: 10/679,804

In view of the fact that PCT claims 1-23 have all been found to meet the international standards of patentability, prompt examination and allowance are respectfully requested.

Respectfully submitted,

Hunkeler et al.

By 
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Volpe and Koenig, P.C.
United Plaza, Suite 1600
30 South 17th Street
Philadelphia, PA 19103

JCD/dmr
Enclosures (2)

PATENT COOPERATION TREATY

GBH/ED M
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From the
INTERNATIONAL PRELIMINARY EXAMINING AUTHORITY

To: JOHN C. DONCH, JR. VOLPE AND KOENIG, P.C. UNITED PLAZA, SUITE 1600 30 SOUTH 17TH STREET PHILADELPHIA, PA 19103	RECEIVED OCT 28 2004	PCT NOTIFICATION OF TRANSMITTAL OF INTERNATIONAL PRELIMINARY EXAMINATION REPORT (PCT Rule 71.1)
		Date of Mailing (day/month/year) 27 OCT 2004
Applicant's or agent's file reference I-2-0388.1WO		IMPORTANT NOTIFICATION
International application No. PCT/US03/31933	International filing date (day/month/year) 07 October 2003 (07.10.2003)	Priority date (day/month/year) 08 October 2002 (08.10.2002)
Applicant INTERDIGITAL TECHNOLOGY CORPORATION		

1. The applicant is hereby notified that this International Preliminary Examining Authority transmits herewith the international preliminary examination report and its annexes, if any, established on the international application.

2. A copy of the report and its annexes, if any, is being transmitted to the International Bureau for communication to all the elected Offices.

3. Where required by any of the elected Offices, the International Bureau will prepare an English translation of the report (but not of any annexes) and will transmit such translation to those Offices.

4. **REMINDER**

The applicant must enter the national phase before each elected Office by performing certain acts (filing translations and paying national fees) within 30 months from the priority date (or later in some Offices)(Article 39(1))(see also the reminder sent by the International Bureau with Form PCT/IB/301).

Where a translation of the international application must be furnished to an elected Office, that translation must contain a translation of any annexes to the international preliminary examination report. It is the applicant's responsibility to prepare and furnish such translation directly to each elected Office concerned.

For further details on the applicable time limits and requirements of the elected Offices, see Volume II of the PCT Applicant's Guide.

Name and mailing address of the IPEA/US Mail Stop PCT, Attn: IPEA/US Commissioner for Patents P.O. Box 1450 Alexandria, Virginia 22313-1450 Facsimile No. (703) 305-3230	Authorized officer Huy Nguyen Telephone No. 703-305-3283
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Form PCT/IPEA/416 (July 1992)

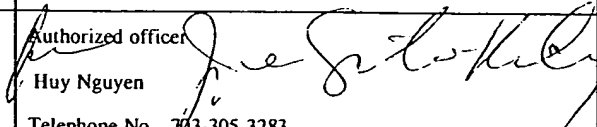
DOCKETED FOR 4/8/05 - PCT 30 month DEADLINE

PATENT COOPERATION TREATY

PCT

INTERNATIONAL PRELIMINARY EXAMINATION REPORT

(PCT Article 36 and Rule 70)

Applicant's or agent's file reference I-2-0388.1WO	FOR FURTHER ACTION See Notification of Transmittal of International Preliminary Examination Report (Form PCT/IPEA/416)	
International application No. PCT/US03/31933	International filing date (day/month/year) 07 October 2003 (07.10.2003)	Priority date (day/month/year) 08 October 2002 (08.10.2002)
International Patent Classification (IPC) or national classification and IPC IPC(7): H04Q 7/20 and US Cl.: 455/561,436,502,509		
Applicant INTERDIGITAL TECHNOLOGY CORPORATION		
<p>1. This international preliminary examination report has been prepared by this International Preliminary Examining Authority and is transmitted to the applicant according to Article 36.</p> <p>2. This REPORT consists of a total of <u>11</u> sheets, including this cover sheet.</p> <p><input type="checkbox"/> This report is also accompanied by ANNEXES, i.e., sheets of the description, claims and/or drawings which have been amended and are the basis for this report and/or sheets containing rectifications made before this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions under the PCT).</p> <p>These annexes consist of a total of _____ sheets.</p> <p>3. This report contains indications relating to the following items:</p> <ul style="list-style-type: none"> I <input checked="" type="checkbox"/> Basis of the report II <input type="checkbox"/> Priority III <input type="checkbox"/> Non-establishment of report with regard to novelty, inventive step and industrial applicability IV <input checked="" type="checkbox"/> Lack of unity of invention V <input checked="" type="checkbox"/> Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement VI <input type="checkbox"/> Certain documents cited VII <input type="checkbox"/> Certain defects in the international application VIII <input type="checkbox"/> Certain observations on the international application 		
Date of submission of the demand 28 April 2004 (28.04.2004)	Date of completion of this report 13 October 2004 (13.10.2004)	
Name and mailing address of the IPEA/US Mail Stop PCT, Attn: IPEA/US Commissioner for Patents P.O. Box 1450 Alexandria, Virginia 22313-1450 Facsimile No. (703) 305-3230	Authorized officer  Huy Nguyen Telephone No. 703-305-3283	

Form PCT/IPEA/409 (cover sheet)(July 1998)

INTERNATIONAL PRELIMINARY EXAMINATION REPORT

International application No.

PCT/US03/31933

I. Basis of the report

1. With regard to the elements of the international application:*

- ☒ the international application as originally filed.
- ☒ the description:
pages 1-11 _____ as originally filed
pages NONE _____, filed with the demand
pages NONE _____, filed with the letter of _____.
- ☒ the claims:
pages 12-16 _____, as originally filed
pages NONE _____, as amended (together with any statement) under Article 19
pages NONE _____, filed with the demand
pages NONE _____, filed with the letter of _____.
- ☒ the drawings:
pages 1-4 _____, as originally filed
pages NONE _____, filed with the demand
pages NONE _____, filed with the letter of _____.
- ☐ the sequence listing part of the description:
pages NONE _____, as originally filed
pages NONE _____, filed with the demand
pages NONE _____, filed with the letter of _____.

2. With regard to the language, all the elements marked above were available or furnished to this Authority in the language in which the international application was filed, unless otherwise indicated under this item.

These elements were available or furnished to this Authority in the following language _____ which is:

- ☐ the language of a translation furnished for the purposes of international search (under Rule 23.1(b)).
- ☐ the language of publication of the international application (under Rule 48.3(b)).
- ☐ the language of the translation furnished for the purposes of international preliminary examination (under Rules 55.2 and/or 55.3).

3. With regard to any nucleotide and/or amino acid sequence disclosed in the international application, the international preliminary examination was carried out on the basis of the sequence listing:

- ☐ contained in the international application in printed form.
- ☐ filed together with the international application in computer readable form.
- ☐ furnished subsequently to this Authority in written form.
- ☐ furnished subsequently to this Authority in computer readable form.
- ☐ The statement that the subsequently furnished written sequence listing does not go beyond the disclosure in the international application as filed has been furnished.
- ☐ The statement that the information recorded in computer readable form is identical to the written sequence listing has been furnished.

4. ☐ The amendments have resulted in the cancellation of:

- ☐ the description, pages NONE
- ☐ the claims, Nos. NONE
- ☐ the drawings, sheets/fig NONE

5. ☐ This report has been established as if (some of) the amendments had not been made, since they have been considered to go beyond the disclosure as filed, as indicated in the Supplemental Box (Rule 70.2(c)).**

* Replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report since they do not contain amendments (Rules 70.16 and 70.17).

** Any replacement sheet containing such amendments must be referred to under item 1 and annexed to this report.

INTERNATIONAL PRELIMINARY EXAMINATION REPORT

International application No.

PCT/US03/31933

IV. Lack of unity of invention

1. In response to the invitation to restrict or pay additional fees the applicant has:

- ☐ restricted the claims.
☒ paid additional fees.
☐ paid additional fees under protest.
☐ neither restricted nor paid additional fees.

2. ☐ This Authority found that the requirement of unity of invention is not complied with and chose, according to Rule 68.1, not to invite the applicant to restrict or pay additional fees.

3. This Authority considers that the requirement of unity of invention is accordance with Rules 13.1, 13.2 and 13.3 is

- ☐ complied with.
☐ not complied with for the following reasons:

I. Claims 1-17, drawn to mobile equipment detail.

II. Claims 18-21, drawn to system equipment.

III. Claims 22-23, drawn to handoff method.

Inventions I and II are related as subcombination and combination. Inventions in this relationship are distinct if it can be shown that (1) the combination as claimed does not require the particulars of the subcombination as claimed for patentability, and (2) that the subcombination has utility by itself or in other combinations (MPEP § 806.05(c)). In the instant case, the combination as claimed does not require the particulars of the subcombination as claimed. The subcombination has separate utility such as bearer for transmitting user-information signals.

Inventions I and III are related are related as subcombination and combination. Inventions in this relationship are distinct if it can be shown that (1) the combination as claimed does not require the particulars of the subcombination as claimed for patentability, and (2) that the subcombination has utility by itself or in other combinations (MPEP § 806.05(c)). In the instant case, the combination as claimed does not require the particulars of the subcombination as claimed. The subcombination has separate utility such as bearer for transmitting user-information signals.

4. Consequently, the following parts of the international application were the subject of international preliminary examination in establishing this report:

- ☒ all parts.
☐ the parts relating to claims Nos. _____

INTERNATIONAL PRELIMINARY EXAMINATION REPORT

International application No.
PCT/US03/31933

V. Reasoned statement under Rule 66.2(a)(ii) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

1. STATEMENT

Novelty (N)	Claims 1-23	YES
	Claims NONE	NO
Inventive Step (IS)	Claims 1-23	YES
	Claims NONE	NO
Industrial Applicability (IA)	Claims 1-23	YES
	Claims NONE	NO

2. CITATIONS AND EXPLANATIONS

Claims 1-17 meet the criteria set out in PCT Article 33(2)-(4), because the prior art does not teach or fairly suggest wireless transmit/receive unit (WTRU) configured for seamless operation across various types of wireless communication systems, comprising:

at least one application for performing a wireless service wherein the application is configured to translate quality of service requirements across various types of wireless communication systems; and
at least one bearer for transmitting user-information signals between user-network interfaces.

Claims 18-21 meet the criteria set out in PCT Article 33(2)-(4), because the prior art does not teach or fairly suggest wireless communication system, comprising:

at least one interfacing device through which wireless transmit/receive units (WTRUs) may interface with the wireless communication system; and

means for receiving quality of service requirements from a WTRU requesting handover to the wireless communication system wherein the quality of service requirements are specified according to a different type of wireless communication system from which the WTRU is requesting handover from and translating the quality of service requirements to continue a service initiated in the system from which the WTRU is requesting handover from.

Claims 22-23 meet the criteria set out in PCT Article 33(2)-(4), because the prior art does not teach or fairly suggest method for providing seamless handover between various types of wireless communication systems, comprising the steps of initiating an application in a wireless transmit/receive unit (WTRU) in a first type of wireless communication system;

requesting handover of the WTRU from the first system to a second type of wireless communication system;
translating quality of service requirements from the specifications of the first system to the specifications of the second system;

handing over the WTRU to the second system; and continuing in the second system the application that was initiated in the first system, wherein the application is continued with the quality of service requirements specified according to the specifications of the second system.

----- NEW CITATIONS -----